

# Notice of Allowability

Application No.

09/579,811

Examiner

Jung W Kim

Applicant(s)

KIM ET AL.

Art Unit

2132

## -- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to 9/10/2004.
2. ☒ The allowed claim(s) is/are 1-3,5,7,8,10-13,15,17 and 18.
3. ☐ The drawings filed on \_\_\_\_\_ are accepted by the Examiner.
4. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
  - a) ☐ All    b) ☐ Some\*    c) ☐ None    of the:
    1. ☐ Certified copies of the priority documents have been received.
    2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
    3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\* Certified copies not received: \_\_\_\_\_.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

**THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.**

5. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
  6. ☒ CORRECTED DRAWINGS ( as "replacement sheets") must be submitted.
    - (a) ☒ including changes required by the Notice of Draftsperson's Patent Drawing Review ( PTO-948) attached
      - 1) ☐ hereto or 2) ☒ to Paper No./Mail Date 3/17/04.
    - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date \_\_\_\_\_.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
7. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

### Attachment(s)

1. ☐ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO-1449 or PTO/SB/08),  
Paper No./Mail Date \_\_\_\_\_
4. ☐ Examiner's Comment Regarding Requirement for Deposit  
of Biological Material
5. ☐ Notice of Informal Patent Application (PTO-152)
6. ☐ Interview Summary (PTO-413),  
Paper No./Mail Date \_\_\_\_\_
7. ☒ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other \_\_\_\_\_

### **EXAMINER'S AMENDMENT**

An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it **MUST** be submitted no later than the payment of the issue fee.

The application has been amended as follows:

In the claims:

Claim 1, Line 15, replace "salve" with – slave --.

### ***Drawings***

The drawings filed on May 26, 2000 are acceptable subject to correction of the informalities indicated on the "Notice of Draftsperson's Patent Drawing Review," PTO-948 mailed on March 17, 2004. In order to avoid abandonment of this application, correction is required in reply to the Office action. The correction will not be held in abeyance.

### ***Allowable Subject Matter***

Claim 1-3, 5, 7, 8, 10-13, 15, 17 and 18 are allowed.

The following is an examiner's statement of reasons for allowance:

Claims 1-3, 5, 7, 8, 10-12 are drawn to a method for encryption of digital data for transmission from a transmitter to a receiver. The closest prior art, Lee et al. U.S. Patent No. 5,825,824 in view of Widmer et al. "A DC-balanced, Partitioned-Block, 8B/10B Transmission Code" and Case U.S. Patent No. 5,720,034 covers a similar method for encryption. However, Lee et al., Widmer et al. and Case neither teach nor suggest information wherein the step of deriving first and second slave keys from the master key comprises the steps of

- selecting M bits of the master key as initial values for M-bit LFSR;
- selecting a LFSR configuration based on N bits of the master key; and
- using the selected LFSR configuration and the M-bit LFSR to derive first and second slave keys (see Specification, page 13, second paragraph-page 15, first paragraph).

These particular features explicitly incorporated into independent claim 1 renders claims 1-3, 5, 7, 8, 10-12 allowable.

Claims 13, 15, 17 and 18 are drawn to an apparatus for encryption of digital data for transmission from a transmitter to a receiver. The closest prior art, Lee et al. U.S. Patent No. 5,825,824 in view of Widmer et al. "A DC-balanced, Partitioned-Block, 8B/10B Transmission Code" and Case U.S. Patent No. 5,720,034 covers a similar method for encryption. However, Lee et al., Widmer et al. and Case neither teach nor suggest information wherein the means for deriving from the master key a first slave key

for the first portion of data, and a second slave key for the second portion of data comprises the steps of:

means for selecting M bits of the master key as initial values for M-bit LFSR;  
means for selecting a LFSR configuration based on N bits of the master key; and  
means for using the selected LFSR configuration and the M-bit LFSR to derive first and second slave keys (see Specification, page 13, second paragraph-page 15, first paragraph).

These particular features explicitly incorporated into independent claim 13 renders claims 13, 15, 17 and 18 allowable.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

### ***Telephonic Inquiry Contacts***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jung W Kim whose telephone number is (571) 272-3804. The examiner can normally be reached on M-F 9:00-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Gilberto Barron can be reached on (571) 272-3799. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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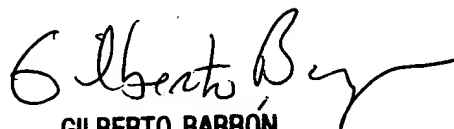
Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Jung W Kim  
Examiner  
Art Unit 2132

Jk

November 16, 2004



GILBERTO BARRÓN  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 2100